

A CASE OF UNILATERAL MIXED NYSTAGMUS BENEFITED BY TREATMENT.¹

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UNILATERAL nystagmus is exceedingly rare, according to Duane,² some 50 or 60 cases only having been reported. Of these, by far the greater number are of the vertical type, Duane's summary being 34 vertical, 11 horizontal, 6 rotary, and 2 mixed. It is in the latter class that the following case belongs.

M. L., a girl aged twelve years, was first examined in April, 1907. There was a convergent concomitant strabismus of 15°, observed first at four years of age, the right being the squinting eye. The vision of the right was 6/7.5; of the left, 6/6. The ophthalmoscopic examination revealed nothing abnormal either in the media or fundi. The child was exceedingly nervous, and for two years had complained of involuntary movements of the right (squinting) eye. She had never observed any diplopia, nor could it be demonstrated, and there had never been noted any similar movements in the left eye, either by herself or by her mother. The ocular excursions were good in all directions, and she could converge to within 3½ inches from the root of the nose. The pupillary reactions and the fields were normal. Binocular single vision was, of course, absent.

With her eyes in a primary position fixing a distant object, the nystagmus was at times mixed (vertical and rotary), at other times vertical only, and again purely rotary. This was demonstrated upon many different occasions. The rotary movements were from right to left; that is, contrary to the movements of the hands of a clock. The nystagmus was not always present, there being periods of rest, but it was always produced by bringing a stranger into the room, or by any other means that would make the child in the least degree nervous. With the eyes rotated upward or downward, the movements were always rotary. When the eyes were directed to the extreme right, the movements were mixed (vertical and rotary); to the extreme left, the movements were vertical only. If the head was tilted toward the right or toward the left shoulder, the movements were mixed. In forced convergence the movements did not differ in character from those observed when the eyes were in the position of rest, but the oscillations were more rapid and more prolonged. The nystagmic excursions were very short and rapid and were not altered by covering either eye.

¹ Read at a meeting of the Section on Ophthalmology of the College of Physicians of Philadelphia, October 15, 1907.

² The Ophthalmic Record, October, 1906.

The refractive error was corrected under atropine, the following being ordered: O. D. + S 2.25 D $\ominus$ + C 0.25 D axis 90°; O. S. + S 2.25 D $\ominus$ + C 0.50 D axis 90°, this being a half diopter less than the full correction.

After wearing these glasses for several weeks, during which time stereoscopic exercises were employed twice daily, the conditions had materially improved. The squint was now scarcely noticeable, being only about 5°. In the primary position there was now, at times, vertical nystagmus, appearing only when something caused the child to be very nervous. When looking to the extreme right or left, or upon rotating the eyes upward or downward, there were also vertical nystagmic movements. The movements now, however, always ceased as soon as the left (non-nystagmic) eye was covered. When the left eye was covered there was always an immediate slight outward movement of the right, in order to fix the object, and just as soon as this was accomplished the nystagmus ceased. There was no nystagmus now in forced accommodation until the point beyond which the eyes could converge was passed ($3\frac{1}{2}$ inches). In other words, so long as the patient employed the left eye for fixation there were periods of nystagmic movements in the right if the child became nervous, but whenever the right eye was used as the fixing eye all movements ceased and, under this condition, could not be induced.

This result is similar in some respects to that obtained in the case reported by Verhoeff before the American Ophthalmological Society at its last meeting. The paper, I believe, has not yet been published, but if I remember the case correctly, he had corrected the squint as far as possible by an operation, and then placed in front of the non-nystagmic eye a convex lens so strong (an addition of 1.50 D to the regular correction) that the patient could not see clearly through it for distance, being, therefore, compelled to employ the nystagmic eye, and under these conditions all nystagmic movements ceased. When the patient attempted to read, however, which could be done through the added lens, nystagmic movements were produced.